

VASILEIOS (VASILIS) PASCHALIDIS  
*Curriculum Vitae*

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Department of Astronomy  
University of Arizona, Tucson  
933 N Cherry Ave  
AZ, 85721

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email: vpaschal@email.arizona.edu

**Nationality** Hellenic (Greek)

**Present Position**

Assistant Professor and Theoretical Astrophysics Program faculty  
DEPARTMENTS OF ASTRONOMY & PHYSICS  
UNIVERSITY OF ARIZONA - TUCSON  
August 2017-

**Previous Positions**

Research Scholar  
DEPARTMENT OF PHYSICS  
PRINCETON UNIVERSITY  
2014-2017

Fortner Fellow  
DEPARTMENT OF PHYSICS  
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN (UIUC)  
2013-2014

Postdoctoral Research Associate  
DEPARTMENT OF PHYSICS  
UIUC  
2008-2013

**Education** THE UNIVERSITY OF CHICAGO Chicago, IL  
August 2008  
Ph.D. Astrophysics  
Dissertation: "Formulations of General Relativity and numerical applications"  
Advisor: Alexei M. Khokhlov

Field: Numerical Relativity

Thesis Committee members: A. M. Khokhlov, Robert M. Wald, Donald Q. Lamb, Wayne Hu, Donald G. York

THE UNIVERSITY OF CHICAGO

Chicago, IL

June 2004

M.S. Astrophysics

ARISTOTELEION UNIVERSITY, DEPARTMENT OF PHYSICS,

FACULTY OF SCIENCES

Thessaloniki, Greece

June 2003

Physics Diploma (B.S.; top 1st in class), major Physics

Senior Thesis: "Newtonian models of rapidly rotating neutron stars"

Thesis Advisors: Professors K. Kokkotas and N. Stergioulas

## Awards

Lucas/San Diego Astronomy Association Junior Faculty Award, University of Arizona (UA), Tucson, 2018

Fortner Research Fellowship in Theoretical Astrophysics, UIUC 2013

Enrico Fermi Institute Sugarman Award for Excellence in Graduate Research, University of Chicago 2008

Eugene and Niesje Parker Fellowship for academic research, University of Chicago 2007

Lambrini-Lina Athanassoula Benefit Foundation Award for Academic Excellence 2005-2007

Greek Ministry of Education Fellowship for PhD studies, 2003 (declined)

Greek Ministry of Education Fellowship for Undergraduate Excellence, 1999–2003 (awarded annually)

## Previous Research Experience

GRADUATE RESEARCH ASSISTANT,

THE UNIVERSITY OF CHICAGO

Sept 2004–March 2007, Sept–August 2008

APPOINTMENT AS A FELLOW RESEARCHER,

INSTITUTE FOR PURE AND APPLIED MATHEMATICS,

UNIVERSITY OF CALIFORNIA, LOS ANGELES

March–June 2005

RESEARCH ASSISTANT, DEPARTMENT OF PHYSICS,

ARISTOTELEION UNIVERSITY OF THESSALONIKI

Sept 2001–June 2003

## Teaching Experience

INSTRUCTOR

UNIVERSITY OF ARIZONA, TUCSON

*General Relativity* - GRADUATE LEVEL

Spring 2020

*Computational Physics* - UNDERGRADUATE LEVEL

Fall 2019

*High Energy Astrophysics* - GRADUATE LEVEL

Spring 2018

LECTURER,  
INTERNATIONAL CENTER FOR THEORETICAL PHYSICS, IFT-UNESP, BRAZIL  
*A first course on Numerical Relativity* - GRADUATE LEVEL Spring 2016

GUEST LECTURER,  
PRINCETON UNIVERSITY,  
*Introduction to General Relativity* - GRADUATE LEVEL Fall 2015

GUEST LECTURER,  
UIUC,  
*General Relativity II* - GRADUATE LEVEL Fall 2014

TEACHING ASSISTANT,  
THE UNIVERSITY OF CHICAGO Fall 2003–Spring 2004, Spring & Fall 2007  
Led lab and discussion sections in:  
-*Stellar Astronomy & Astrophysics*,  
Instr.: A. Königl, Lab Instr.: P. Palmer  
-*Origin and evolution of the Universe*,  
Instr.: E. W. (Rocky) Kolb, Lab Instr.: C. Pryke  
-*Formation and evolution of Stars and the Solar System*,  
Instr.: S. S. Meyer  
-*General Physics, Waves & Optics*,  
Instr.: S. P. Wakely, Lab Instr.: V. Bistrow  
-*Foundations of Modern Physics*,  
Instr.: B. D. Winstein, S. P. Wakely, Lab Instr.: V. Bistrow

COLLEGE CORE TUTOR PROGRAM,  
THE UNIVERSITY OF CHICAGO Fall 2005 – Spring 2008  
Led Physics, Astrophysics and Mathematics tutorials  
for college students at all levels

TEACHING ASSISTANT/GRADER, DEPARTMENT OF PHYSICS,  
ARISTOTELEION UNIVERSITY; CHOSEN AFTER EXCELLING IN CLASS Fall 2001  
Led tutorials for physics students majoring in Astrophysics

### **Postdoctoral Mentoring**

JOHN RYAN WESTERNACHER-SCHNEIDER, 2018-, U OF ARIZONA  
MILTON RUIZ, 2013-2015, UIUC  
ROMAN GOLD, 2011-2014, UIUC

## Graduate Student Advising

CAROLYN RAITHEL, (ASTRONOMY), 2019-, UA, TUCSON  
ALEX HIGGINS, (PHYSICS), 2018-, UA, TUCSON  
JANE BRIGHT, (ASTRONOMY), 2018-, UA, TUCSON  
ERIK KEONI, (PHYSICS), 2018-, UA, TUCSON  
GABRIELE BOZZOLA, (ASTRONOMY), 2018-, UA, TUCSON  
PEDRO ESPINO, (PHYSICS), 2017-, UA, TUCSON  
ABID KHAN, (PHYSICS), 2015-2017, UIUC  
LUNAN SUN, (PHYSICS), 2015-2017, UIUC  
BRIAN D. FARRIS, (PHYSICS), 2011-2012, UIUC  
SEYYED M. H. HALATAEI, (PHYSICS), 2010-2011, UIUC

## Undergraduate Student Advising

SHAMBHAVI SINGH, (ELEC. AND COMP. ENGINEERING), 2020-, UA, TUCSON  
PAUL ROBERTSON, (PHYSICS), 2019-, UA, TUCSON  
COLLIN LEWIN, (ASTRONOMY), 2017-, UA, TUCSON  
WILLIAM LAKE, (ASTRONOMY), 2017-2019, UA, TUCSON  
RYAN LEWIS, (PHYSICS), 2018, UA, TUCSON  
ILLINOIS RELATIVITY GROUP REU TEAM (PHYSICS): GREGORY COLTEN (2011-2013), ALBERT KIM, BRIAN TAYLOR, FRANCIS WALSH, (2011-2014), LINGYI KONG (2013-2014), ABID KHAN, SEAN CONNELLY (2014) UIUC

## Seminar and Conference Organizer

EXTREME GRAVITY AND ASTROPHYSICS JOURNAL CLUB UA, Tucson, Jan 2018  
GR@100++ Princeton University, April, 2016  
GRAVITY GROUP SEMINAR Princeton University, Sep 2014 2015  
THEORETICAL ASTROPHYSICS AND GENERAL RELATIVITY SEMINAR  
UIUC, Jan 2012 Aug 2014  
THEORETICAL ASTROPHYSICS AND GENERAL RELAVITY JOURNAL CLUB  
UIUC, Jan 2012 Aug 2014  
21ST MIDWEST RELATIVITY MEETING UIUC, Nov. 4-5 2011

## Peer Reviewer/Referee

ASTROPHYSICAL JOURNAL  
ASTROPHYSICAL JOURNAL LETTERS  
MONTLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY  
PHYSICAL REVIEW LETTERS  
PHYSICAL REVIEW X  
PHYSICAL REVIEW D  
CLASSICAL AND QUANTUM GRAVITY  
INTERNATIONAL JOURNAL OF MODERN PHYSICS D  
JOURNAL OF PHYSICS G

## Scientific Reviewer/Advisor

REVIEWER FOR UNIVERSITY OF WISCONSIN-MILWAUKEE “ADVANCING RESEARCH AND CREATIVITY” GRANTS (2019)  
SCIENTIFIC REVIEWER FOR GERMAN RESEARCH FOUNDATION (2018)  
SCIENTIFIC REVIEWER FOR GERMAN RESEARCH FOUNDATION (2018)  
SCIENTIFIC REVIEWER FOR NASA ASTROPHYSICS THEORY PROGRAM (2017-)  
SCIENTIFIC REVIEWER FOR DIVISION OF GRAVITATIONAL PHYSICS NATIONAL SCIENCE FOUNDATION GRANT PROPOSALS (2016-)  
SCIENTIFIC REVIEWER FOR SUPERCOMPUTER ALLOCATION PROPOSALS AT THE HIGH PERFORMANCE COMPUTING CENTER CY-TERA AT THE UNIVERSITY OF CYPRUS (2014-)

## Grants/Allocations

NSF DIVISION OF PHYSICS (2019-2022): \$240,000.00.  
PI ON “WOU-MMA: RESEARCH IN STRONG-FIELD GRAVITY AND ASTROPHYSICS”

NASA FERMI GUEST INVESTIGATOR GRANT (2016): \$45,000.00.  
PI ON “STUDIES OF GAMMA-RAY BURST ENGINES IN FULL GENERAL RELATIVITY”

XSEDE SUPERCOMPUTER ALLOCATION (PHY190020):  
PI ON “STUDIES IN EXTREME ASTROPHYSICS AND GRAVITY”. AWARDED, 699,612 SUs ON COMET (SDSC), 90,049 NODE HOURS ON STAMPEDE 2 (TACC) (2019-2020), VALUE OF \$35,690.90

XSEDE SUPERCOMPUTER ALLOCATION (PHY100053):  
CO-PI ON “COMPACT OBJECT BINARY MERGERS: SIMULATIONS IN FULL GENERAL RELATIVITY”. AWARDED, 2,000,000.00 SUs ON COMET (SDSC), 99,789.00 NODE HOURS ON STAMPEDE 2 (TACC) (2017-2018), VALUE OF \$97,755.23

XSEDE SUPERCOMPUTER ALLOCATION (PHY100053):  
CO-PI ON “COMPACT OBJECT BINARY MERGERS: SIMULATIONS IN FULL GENERAL RELATIVITY”. AWARDED 2,110,482.0 SUs ON GORDON (SDSC), 1,728,224.0 SUs ON COMET (SDSC). TOTAL SUs 3,838,706 (2015-2016), VALUE OF \$240,387.48

BLUE WATERS ALLOCATION (ILL\_JOH):  
CO-PI ON “GRAVITATIONAL AND ELECTROMAGNETIC SIGNATURES OF COMPACT BINARY MERGERS: GENERAL RELATIVISTIC SIMULATIONS AT THE PETASCALE”. AWARDED 970,000 NODE HOURS (2016-2017)

XSEDE SUPERCOMPUTER ALLOCATION (MCA99S008):  
CO-PI ON “STUDIES IN THEORETICAL ASTROPHYSICS AND GENERAL RELATIV-

ITY”. AWARDED 1,662,014 SUs ON STAMPEDE (TACC), 1,246,511 SUs ON COMET (SDSC). TOTAL SUs 2,908,525 (2015-2016), VALUE OF \$99,913.0

XSEDE SUPERCOMPUTER ALLOCATION (PHY100053):

CO-PI ON “COMPACT OBJECT BINARY MERGERS: SIMULATIONS IN FULL GENERAL RELATIVITY”. AWARDED 2,034,578,4 SUs ON STAMPEDE (TACC), 2,034,578,4 SUs ON COMET (SDSC). TOTAL SUs 4,069,156 (2014-2015), VALUE OF \$145,539.34

BLUE WATERS ALLOCATION (ILL\_JOH):

CO-PI ON “GRAVITATIONAL AND ELECTROMAGNETIC SIGNATURES OF COMPACT BINARY MERGERS: GENERAL RELATIVISTIC SIMULATIONS AT THE PETASCALE”. AWARDED 610,000 NODE HOURS (2014-2015)

XSEDE SUPERCOMPUTER ALLOCATION (MCA99S008):

CO-PI ON “STUDIES IN THEORETICAL ASTROPHYSICS AND GENERAL RELATIVITY”. 4,227,334 SUs ON STAMPEDE (TACC), 1,704,556 SUs ON LONESTAR (TACC) 409,111 SUs ON KRAKEN (NICS), 422,733 SUs ON TRESTLES (SDSC). TOTAL SUs: 6,763,734 (2013-2014), VALUE OF \$234,657.43

BLUE WATERS ALLOCATION (ILL\_JOH):

CO-PI ON “GRAVITATIONAL AND ELECTROMAGNETIC SIGNATURES OF COMPACT BINARY MERGERS: GENERAL RELATIVISTIC SIMULATIONS AT THE PETASCALE”. AWARDED 610,000 NODE HOURS (2013-2014)

## Major Collaborations

LASER INTERFEROMETER SPACE ANTENA (LISA), U OF ARIZONA GRAVITATIONAL WAVE PHYSICS GROUP LEADER U of Arizona, 2018-

NUMERICAL RELATIVITY & ANALYTICAL RELATIVITY (NRAR), ILLINOIS RELATIVITY GROUP CO-LIAISON UIUC, 2010 2013

NUMERICAL INJECTION ANALYSIS 2 (NINJA-2), ILLINOIS RELATIVITY GROUP CO-LIAISON UIUC, 2012 2014

## Select Invited Talks

MULTIMESSENGER ASTRONOMY OF COMPACT BINARIES FROM THE VANTAGE POINT OF COMPUTATIONAL GRAVITY  
Physics Colloquium, University of Virginia, Charlottesville, VA, 2020

BINARY NEUTRON STAR MERGERS: NATURE’S LAB FOR ASTROPHYSICS AND NUCLEAR PHYSICS

APS April Meeting 2018, April 14-17, 2018 Columbus, OH

CHIRPS, JETS AND KICKS: THE SPECTACULAR WORLD OF BLACK HOLE BINARIES  
University of Arizona, Tucson, April 10, 2017

BLACK HOLE COLLISIONS AS MULTIMESSENGER SOURCES  
Queen Mary University of London, London, September 27, 2016

GENERAL RELATIVISTIC SIMULATIONS OF COMPACT BINARY MERGERS AS ENGINES  
OF SHORT GAMMA-RAY BURSTS  
11th International Conference on Numerical Modeling of Space Plasma Flows  
(ASTRONUM), Monterey June 5-10, 2016

PROBING FRONTIERS OF FUNDAMENTAL PHYSICS AND ASTROPHYSICS WITH NUMERICAL RELATIVITY  
Perimeter Institute, Waterloo, Ontario, April 2, 2016

FUTURE DIRECTIONS IN COMPUTATIONAL GRAVITY: ASTROPHYSICS MOTIVATED GRAVITY  
International conference on General Relativity and Gravitation: A centennial perspective, PennState, June 9, 2015

COLLISIONS OF COMPACT BINARIES AS MULTI-MESSENGER SOURCES  
Department of Physics, University of Bath, Special Seminar, March 20, 2015

NUMERICAL RELATIVITY: CHALLENGES, RECENT RESULTS AND FUTURE APPLICATIONS  
Department of Physics, Princeton Gravity Group Seminar, January 9, 2015

NUMERICAL RELATIVITY AT THE FRONTIER: CHALLENGES, RESULTS AND FUTURE DIRECTIONS  
Physics Gravity Seminar, The University of Chicago, January 23, 2014

DETECTABLE SIGNATURES OF COMPACT BINARIES INVOLVING NEUTRON STARS  
Strong Gravity Seminar, Perimeter Institute, May 16, 2013

RECENT DEVELOPMENTS IN NUMERICAL RELATIVITY  
Stanford Astrophysics Colloquium, Stanford University, February 15, 2013

COMPACT BINARY MERGERS-NUMERICAL SIMULATIONS  
Panelist, Princeton Center for Theoretical Science, Princeton, May 2, 2012

## Refereed Publications

2020

1. PROSPECTS FOR FUNDAMENTAL PHYSICS WITH LISA  
E. Barausse et al.. arXiv:2001.09793

2019

2. ON THE DYNAMICAL STABILITY OF QUASI-TOROIDAL DIFFERENTIALLY ROTATING NEUTRON STARS  
Pedro L. Espino, **V. Paschalidis**, Thomas W. Baumgarte, Stuart L. Shapiro. Phys. Rev. D **100**, 043014 (2019), arXiv:1906.08786
3. SEARCHES AFTER GRAVITATIONAL-WAVES USING ARIZONA OBSERVATORIES (SAGUARO): SYSTEM OVERVIEW AND FIRST RESULTS FROM ADVANCED LIGO/VIRGO THIRD OBSERVING RUN  
M. J. Lundquist et al.. Ap. J. Lett. **881** 2, arXiv:1906.06345
4. BINARY NEUTRON STAR MERGERS: EFFECTS OF SPIN AND POST-MERGER DYNAMICS  
W. East, **V. Paschalidis**, Frans Pretorius, Antonios Tsokaros. Phys. Rev. D **100**, 124042 (2019), arXiv:1906.05288
5. EFFECT OF SPIN ON THE INSPIRAL OF BINARY NEUTRON STARS  
Antonios Tsokaros, Milton Ruiz, **V. Paschalidis** et al.. Phys. Rev. D **100**, 024061 (2019), arXiv:1906.00011
6. MAXIMUM MASS AND UNIVERSAL RELATIONS OF ROTATING RELATIVISTIC HYBRID HADRON-QUARK STARS  
**V. Paschalidis**. The European Phys. J. A **55**, 149 (2019), arXiv:1905.00028
7. MULTI-MESSENGER ASTROPHYSICS WITH PULSAR TIMING ARRAYS  
Luke Zoltan Kelley et al.. Submitted to the Astro2020 decadal review. , arXiv:1903.07644
8. INITIAL DATA FOR GENERAL RELATIVISTIC SIMULATIONS OF MULTIPLE ELECTRICALLY CHARGED BLACK HOLES WITH LINEAR AND ANGULAR MOMENTA  
Gabriele Bozzola, **V. Paschalidis**. Phys. Rev. D **99**, 104044 (2019), arXiv:1903.01036
9. EFFECTS OF SPIN ON MAGNETIZED BINARY NEUTRON STAR MERGERS AND JET LAUNCHING  
Milton Ruiz, Antonios Tsokaros, **V. Paschalidis**, Stuart L. Shapiro. Phys. Rev. D **99**, 084032 (2019) arXiv:1902.08636
10. REVISITING THE MAXIMUM MASS OF DIFFERENTIALLY ROTATING NEUTRON STARS IN GENERAL RELATIVITY: BERMALLOTT STARS WITH REALISTIC EQUATIONS OF STATE  
Pedro Espino, **V. Paschalidis**. Phys. Rev. D **99**, 083017 (2019), arXiv:1901.05479
11. ARE FAST RADIO BURSTS THE MOST LIKELY ELECTROMAGNETIC COUNTERPARTS OF NEUTRON STAR MERGERS RESULTING IN PROMPT COLLAPSE?



**V. Paschalidis** & M. Ruiz. Phys. Rev. D **100**, 043001, (2019), arXiv:1808.04822

**2018**

12. EVOLUTION OF HIGHLY ECCENTRIC BINARY NEUTRON STARS INCLUDING TIDAL EFFECTS  
H. Yang, W. East, **V. Paschalidis** et al. Phys. Rev. D, **98**, Issue 4, 044007, arXiv:1806.00158
13. IMPLICATIONS FROM GW170817 AND I-LOVE-Q RELATIONS FOR RELATIVISTIC HYBRID STARS  
**V. Paschalidis** et al. Phys. Rev. D, **97**, Issue 8, 084038, arXiv:1712.00451
14. GRAVITATIONAL WAVE SPECTROSCOPY OF BINARY NEUTRON STAR MERGER REMNANTS WITH MODE STACKING  
H. Yang, **V. Paschalidis** et al. Phys. Rev. D, **97**, Issue 2, 024049, arXiv:1707.00207
15. DISKS AROUND MERGING BINARY BLACK HOLES: FROM GW150914 TO SUPERMASSIVE BLACK HOLES  
A. Khan; **V. Paschalidis** et al. Phys. Rev. D, **97**, Issue 4, 044036, arXiv:1801.02624

**2017**

16. ROTATING STARS IN RELATIVITY  
**V. Paschalidis** & N. Stergioulas. Living Reviews in Relativity, Vol. 20, Issue 1, article id. 7, 169 pp., arXiv:1612.03050
17. MAGNETOROTATIONAL COLLAPSE OF SUPERMASSIVE STARS: BLACK HOLE FORMATION, GRAVITATIONAL WAVES, AND JETS  
L. Sun, **V. Paschalidis** et al. Phys. Rev. D **96**, Issue 4, 043006, arXiv:1704.04502
18. GRAVITATIONAL WAVE CONTENT AND STABILITY OF UNIFORMLY, ROTATING, TRIAXIAL NEUTRON STARS IN GENERAL RELATIVITY  
A. Tsokaros, M. Ruiz, **V. Paschalidis** et al. Phys. Rev. D **95**, Issue 12, 124057, arXiv:1704.00038
19. BLACK HOLE SPECTROSCOPY WITH COHERENT MODE STACKING  
H. Yang, K. Yagi, J. Blackman, L. Lehner, **V. Paschalidis** et al. Phys. Rev. Letters **118**, Issue 16, 161101, arXiv:1701.05808

**2016**

20. GENERAL RELATIVISTIC SIMULATIONS OF COMPACT BINARY MERGERS AS ENGINES FOR SHORT GAMMA-RAY BURSTS  
**V. Paschalidis**. Class. Quant. Grav., **34**, Issue 8, 084002, arXiv:1611.01519
21. EQUATION OF STATE EFFECTS AND ONE-ARM SPIRAL INSTABILITY IN HYPERMASSIVE NEUTRON STARS FORMED IN ECCENTRIC NEUTRON STAR MERGERS  
W. East, **V. Paschalidis** and F. Pretorius. Invited article for Classical and Quantum Gravity Focus issue on “Rattle and shine: the signals from compact binary

mergers". *Class. Quant. Grav.* **33**, 24, arXiv:1609.00725

22. BINARY NEUTRON STAR MERGERS: A JET ENGINE FOR SHORT GAMMA- RAY BURSTS  
M. Ruiz, R. Lang, **V. Paschalidis**, & S. L. Shapiro. *ApJ Letters*, 824, Number 1, L6, arXiv:1604.02455

23. RELATIVISTIC SIMULATIONS OF ECCENTRIC BINARY NEUTRON STAR MERGERS: ONE-ARM SPIRAL INSTABILITIES AND EFFECTS OF NEUTRON STAR SPIN  
W. East, **V. Paschalidis**, et al. *Phys. Rev. D* **93**, 024011, arXiv:1511.01093

2015

24. ONE-ARM SPIRAL INSTABILITY IN HYPERMASSIVE NEUTRON STARS FORMED IN DYNAMICAL-CAPTURE BINARY NEUTRON STAR MERGERS  
**V. Paschalidis** et al. *Phys. Rev. D (rapid communications)* 92, 121502(R), arXiv:1510.03432

25. ILLINOISGRMHD: AN OPEN-SOURCE, USER-FRIENDLY GRMHD CODE FOR DYNAMICAL SPACETIMES  
Z. B. Etienne, **V. Paschalidis** et al. *Class. Quant. Grav.* 32, 17, 175009, arXiv:1501.07276

26. ECCENTRIC MERGERS OF BLACK HOLES WITH ROTATING NEUTRON STARS  
W. East, **V. Paschalidis**, and F. Pretorius. *ApJ Letters*, 807, L3, arXiv:1503.07171

27. RELATIVISTIC SIMULATIONS OF BLACK HOLE-NEUTRON STAR COALESCENCE: THE JET EMERGES  
**V. Paschalidis**, M. Ruiz, & S. L. Shapiro. *ApJ Letters*, 806, L14, arXiv:1410.7392

2014

28. ACCRETION DISKS AROUND BINARY BLACK HOLES OF UNEQUAL MASS: GRMHD SIMULATIONS OF POSTDECOUPLING AND MERGER  
R. Gold, **V. Paschalidis** et al. *Phys. Rev. D* **90**, 104030, arXiv:1410.1543

29. IMPROVED MOVING PUNCTURE GAUGE CONDITIONS FOR COMPACT BINARY EVOLUTIONS  
Z. B. Etienne, J. G. Baker, **V. Paschalidis** et al. *Phys. Rev. D* **90**, 064032, arXiv:1404.6523

30. THE NINJA-2 PROJECT: DETECTING AND CHARACTERIZING GRAVITATIONAL WAVE SIGNALS FROM NUMERICAL BINARY BLACK HOLE SIMULATIONS.  
The LIGO Scientific Collaboration, the Virgo Collaboration and the NINJA-2 Collaboration.. *Class. Quantum Grav.* 31, 115004, arXiv:1401.0939

31. THE PULSAR SPIN-DOWN LUMINOSITY: SIMULATIONS IN GENERAL RELATIVITY  
M. Ruiz, **V. Paschalidis**, & S. L. Shapiro. *Phys. Rev. D* **89**, 084045, arXiv:1402.5412

32. ACCRETION DISKS AROUND BINARY BLACK HOLES OF UNEQUAL MASS: GRMHD SIMULATIONS NEAR DECOUPLING  
R. Gold, **V. Paschalidis** et al. Phys. Rev. D **89**, 064060, arXiv:1312.0600
33. SELF-INTERACTING DARK MATTER CUSPS AROUND MASSIVE BLACK HOLES  
S. L. Shapiro & **V. Paschalidis**. Phys. Rev. D **89**, 023506, arXiv:1402.0005
34. ERROR-ANALYSIS AND COMPARISON TO ANALYTICAL MODELS OF NUMERICAL WAVEFORMS PRODUCED BY THE NRAR COLLABORATION  
The NRAR collaboration. Clas. Quant. Grav. 31, 025012, arXiv:1307.5307

## 2013

35. A NEW SCHEME FOR MATCHING GENERAL RELATIVISTIC IDEAL MAGNETO- HYDRODYNAMICS TO ITS FORCE-FREE LIMIT  
**V. Paschalidis**, S. L. Shapiro. Phys. Rev. D **88**, 104031, arXiv:1310.3274
36. ADDENDUM TO 'THE NINJA-2 CATALOG OF HYBRID POST-NEWTONIAN/NUMERICAL-RELATIVITY WAVEFORMS FOR NON-PRECESSING BLACK-HOLE BINARIES'  
P. Ajith et al. Class. Quantum Grav. 30, 199401
37. GENERAL RELATIVISTIC SIMULATIONS OF BINARY BLACK HOLE-NEUTRON STARS: PRECURSOR ELECTROMAGNETIC SIGNALS  
**V. Paschalidis**, Z. B. Etienne, & S. L. Shapiro. Phys. Rev. D (rapid communications) **88** 021504(R), arXiv:1304.1805

## 2012

38. GENERAL RELATIVISTIC SIMULATIONS OF BLACK HOLE-NEUTRON STAR MERGERS: EFFECTS OF TILTED MAGNETIC FIELDS  
Z. B. Etienne, **V. Paschalidis**, & S. L. Shapiro. Phys. Rev. D **86**, 084026, arXiv:1209.1632
39. IMPORTANCE OF COOLING IN TRIGGERING THE COLLAPSE OF HYPERMASSIVE NEUTRON STARS  
**V. Paschalidis**, Z. B. Etienne, S. L. Shapiro. Phys. Rev. D **86**, 064032, arxiv:1208.5487
40. BINARY BLACK-HOLE MERGERS IN MAGNETIZED DISKS: SIMULATIONS IN FULL GENERAL RELATIVITY  
B. D. Farris, R. Gold, **V. Paschalidis** et al. Phys. Rev. Lett. **109**, 221102, arXiv:1207.3354
41. THE NINJA-2 CATALOG OF HYBRID POST-NEWTONIAN/NUMERICAL-RELATIVITY WAVEFORMS FOR NON-PRECESSING BLACK-HOLE BINARIES  
The NINJA collaboration. Class. Quantum Grav. 29, 124001, arXiv:1201.5319
42. GENERAL RELATIVISTIC SIMULATIONS OF BLACK HOLE-NEUTRON STAR MERGERS: EFFECTS OF MAGNETIC FIELDS

Z. B. Etienne, Y. T. Liu, **V. Paschalidis**, S. L. Shapiro. Phys. Rev. D **85**, 064029, arXiv:1112.0568

43. RELATIVISTIC MHD IN DYNAMICAL SPACETIMES: IMPROVED EM GAUGE CONDITION FOR AMR GRIDS  
Z. B. Etienne, **V. Paschalidis** et al. Phys. Rev. D **85**, 024013, arXiv:1110.4633
- 2011**
44. THE MERGER OF BINARY WHITE DWARF-NEUTRON STARS: SIMULATIONS IN FULL GENERAL RELATIVITY  
**V. Paschalidis** et al. Phys. Rev. D. **84**, 10403, arXiv:1109.5177
45. CONSTRAINT PROPAGATION EQUATIONS OF THE 3+1 DECOMPOSITION OF F(R) GRAVITY  
**V. Paschalidis** et al. Class. Quant. Grav. **28**, 085006, arXiv:1103.0984
46. HEAD-ON COLLISIONS OF BINARY WHITE DWARFNEUTRON STARS: SIMULATIONS IN FULL GENERAL RELATIVITY  
**V. Paschalidis** et al. Phys. Rev. D. **83**, 064002, arXiv:1009.4932
- 2009**
47. MERGER OF WHITE DWARF-NEUTRON STAR BINARIES: PRELUDE TO HYDRODYNAMIC SIMULATIONS IN GENERAL RELATIVITY  
**V. Paschalidis** et al. Phys. Rev. D. **80**, 024006, arXiv:0910.5719
- 2008**
48. NUMERICAL PERFORMANCE OF THE PARABOLIZED ADM FORMULATION OF GENERAL RELATIVITY  
**V. Paschalidis**, J. Hansen, A. M. Khokhlov. Phys. Rev. D. **78**, 064048, arXiv:0712.1258
49. MIXED HYPERBOLIC-SECOND-ORDER-PARABOLIC FORMULATIONS OF GENERAL RELATIVITY  
**V. Paschalidis**. Phys. Rev. D. **78**, 024002, arXiv:0704.2861
- 2007**
50. WELL-POSED CONSTRAINED EVOLUTION OF 3+1 FORMULATIONS OF GENERAL RELATIVITY  
**V. Paschalidis**, A. M. Khokhlov, I. D. Novikov. Phys. Rev. D. **75**, 024026, arXiv:gr-qc/0511075

#### arXiv papers

51. AN EFFICIENT SPECTRAL INTERPOLATION ROUTINE FOR THE TwoPunctures CODE  
**V. Paschalidis**. arXiv:1304.0457

## Conference Proceedings

52. GENERATION OF INITIAL DATA FOR GENERAL-RELATIVISTIC SIMULATIONS OF CHARGED BLACK HOLES  
**V. Paschalidis.** in Einstein Equations: Physical and Mathematical Aspects of General Relativity (2019)
53. SEARCH FOR QPOs IN PERSEUS WITH FERMI LAT  
Rodrigo Nemmen, Raniere de Menezes, **V. Paschalidis.** Proceedings of IAU Symposium 342: Perseus in Sicily—from black hole to cluster outskirts (2018), arXiv:1811.07215
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**Languages**    Greek (native speaker)  
                  English  
                  French (Novice)

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PROFESSOR THOMAS BAUMGARTE  
Department of Physics & Astronomy, Bowdoin College, 8800 College Station, Brunswick,  
ME 04011  
(207) 725-3605, tbaumgar@bowdoin.edu

IGOR D. NOVIKOV  
Astro Space Center of P.N. Lebedev Physical Institute,  
Profsoyuznaya 84/32, Moscow, 117810, Russia  
email: novikov@asc.rssi.ru

PROFESSOR FRANS PRETORIUS  
Department of Physics, Princeton University, Princeton, NJ 08544  
(609) 258-5858, fpretori@princeton.edu

PROFESSOR STUART L. SHAPIRO  
Department of Physics, UIUC, Urbana, IL 61801  
(217) 333-5427, slshapir@illinois.edu